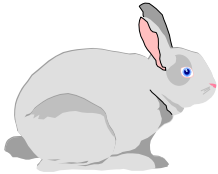


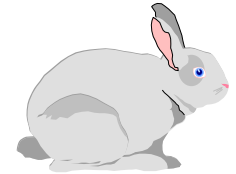
EMERGENCY DISEASE PROGRAM ALERT

Animal Health and Food Safety Services

Animal Health Branch



Rabbit Hemorrhagic Disease in Indiana June 2005



On June 7, 2005, Rabbit Hemorrhagic Disease (RHD), a calici virus was confirmed at a farm in Vanderburgh County, Evansville, Indiana, by the Foreign Animal Disease Diagnostic Laboratory (FADDL) on Plum Island, NY. An animal disease investigation was initiated on June 3, 2005 on a premise that raises rabbits primarily for sale to reptile owners as a food source for snakes. The investigation revealed that 40 of the 200 rabbits on the premises suddenly died 10 days prior to the investigation. A total of 96 rabbits died. The remaining rabbits were quarantined and euthanized and disposed in accordance to State regulations. Less than a dozen rabbits had recently been purchased from Kentucky and introduced into the herd. An epidemiological investigation has begun in Kentucky. There have been no additional reports of illness in either Indiana or Kentucky. The Indiana epidemiological investigation is ongoing to find the source of the virus.

Animal and Plant Health Inspection Service, Veterinary Services (VS), the Indiana Board of Animal Health, and the Kentucky Department of Agriculture are working together to address this situation. The last known positive RHD case in the U.S. occurred in a captive exotic animal facility in Flushing, New York in December 2001.

This is the fourth occurrence of RHD in the U.S. in the last few years. In Iowa, during April 2000, RHD was contained at one facility. The second outbreak occurred in August 2001 in a Utah rabbitry. The Utah facility was linked to other rabbitries in Montana and Illinois, which underwent extensive testing and were determined to be free of the disease. The source of the Iowa and Utah outbreaks could not be definitively determined.

What is RHD?

RHD, also known as viral hemorrhagic disease, is a calici viral disease that affects rabbits in the genus *Oryctolagus*. The incubation period is 24 to 48 hours. It causes liver inflammation (hepatitis) and prevents the blood from clotting. Rabbits may die without showing any outward signs of illness, or may show:

- ▶ fever
- ▶ inappetance
- ▶ lethargy
- ▶ spasms
- ▶ breathing difficulties
- ▶ blue colored lips or mucous membranes
- ▶ bleeding from body cavities

Death is due to massive internal hemorrhaging and liver impairment. Eighty to 100 percent of susceptible rabbits developing the disease may die.

Where did it come from?

RHD was first identified in China in 1984 and then spread through Europe in the late 1980s and early 1990s. It is now endemic (constantly present) in parts of Europe, Asia, and Africa. In the western hemisphere, the disease has been endemic in Cuba since 1993. An outbreak occurred in 1988 in Mexico, but the disease was eradicated by 1992. In 1995, RHD killed 10 million rabbits during eight weeks in southern Australia.

Can people or other animals get RHD?

No. The virus only affects rabbits of the genus *Oryctolagus*. This genus includes most show, pet, and laboratory rabbits. Wild rabbits in the U.S., including the cottontail and jackrabbit, are not in the genus *Oryctolagus*, and are not susceptible to RHD. Other types of calici viruses have been found in people, cattle, sea lions, and cats.

Cats affected with feline hemorrhagic calici virus show influenza-like signs, and humans show gastrointestinal signs such as diarrhea.

Can my rabbit contract RHD?

At this point, the officials in Indiana believe that the outbreak is contained. However, if your rabbit dies suddenly, or exhibits signs of RHD, you should contact your 4H or FFA advisor and your veterinarian. They may submit specimens to a laboratory to determine the cause of death. If your veterinarian suspects RHD, he or she will contact the Animal Health Branch or the United States Department of Agriculture (USDA) – Veterinary Services, Area Office.

As a standard precaution, you should follow appropriate biosecurity precautions to prevent disease introduction to your facility. Biosecurity measures are important to safeguard the health of your rabbits, and include:

- ▶ Avoid unnecessary contact with other people's rabbits. If you must contact other people's rabbits, be sure to wash your hands or shower and change your clothes prior to handling your rabbits.
- ▶ Restrict visitors to your rabbitry and assure that those who visit limit the handling of your animals and take precautions to minimize disease exposure.
- ▶ After visiting a show, fair, or meeting where rabbits were comingled, shower and change clothes before handling your rabbits.
- ▶ Know the health status of the rabbitry from which you purchase your rabbits.
- ▶ Control insects, birds, rodents, and other wild animals, which may be disease carriers, on your facility.

The virus persists in the environment, and can be transmitted through direct contact with infected rabbits or by indirect contact with objects (cages, feeders, grooming equipment, etc.) or people and their clothing that have been contaminated by rabbit secretions or excretions. Transmission may occur following consumption of contaminated water and food, or exposure to rabbit products (meat, fur skins, offal). Vermin, such as insects or rodents, or domestic animals and birds may also become contaminated with the virus and transfer it to rabbits. The virus may be inhaled, eaten, or absorbed through scrapes and wounds.

How do they test for RHD?

Laboratories use monoclonal antibodies to test for RHD. Technicians take a sample of blood and examine it for the presence of specific antibodies against the disease. The only way a rabbit will have RHD antibodies is if it has had the disease or was vaccinated against it. Unfortunately, if the animals do not show clinical signs, there is no way to tell the vaccinated animals from the naturally affected ones using this test.

Can I vaccinate my rabbit against RHD?

RHD vaccines have not been approved for use in the U.S. The use of an RHD vaccine would make it harder to identify animals with the disease, due to the presence of disease-specific antibodies after vaccination. The USDA- Animal and Plant Health Inspection Services determines national vaccination policies for foreign animal diseases such as RHD.

What kind of virus causes RHD?

RHD is caused by a non-enveloped RNA virus. Antibiotics are not effective against viruses.

What part of the body does it attack?

During necropsies of infected rabbits, viruses have been seen in the liver, spleen, lung, kidney, and brain.

At present there are no additional restrictions on rabbit movements into California.

Where can I get more information?

Visit CDFA at www.cdfa.ca.gov

- ▶ Selection and Use of Surface Disinfectants
- ▶ Hand washing
- ▶ Biosecurity Tips for Foreign Travelers

Or **Office International des Epizooties** at www.oie.int.

APHIS/USDA link:

RHD in Indiana:

http://www.aphis.usda.gov/vs/ceah/cei/IW_2005_files/RHD_Indiana_061505_files/RHD_Indiana_061505.htm

RHD Fact sheet:

http://www.aphis.usda.gov/lpa/pubs/fsheet_faq_notice/fs_ahrabbithd6_05.html

RHD Q and A:

http://www.aphis.usda.gov/lpa/pubs/fsheet_faq_notice/faq_ahrabbithd_6_05.html

For more information, call:

CDFA, Animal Health Branch

Headquarters (916) 654-1447

Redding District (530) 225-2140

Modesto District (209) 491-9350

Tulare District (559) 685-3500

Ontario District (909) 947-4462

Or the USDA Area Office (916) 854-3900 or *toll free* (877) 741-3690.